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AGRICULTURAL.

ON THE MEANS OF INCREASING THE FERTILITY OF LAND.

The productiveness of any soil, we think, depends entirely on its natural or artificial capability of retaining and transmitting its moisture, the vehicle at least by which nourishment is conveyed to plants. This productive power may therefore not only be continued in its greatest vigor, but greatly increased by proper management. When we by any means give to the soil a permanently increased vegetative power, we also increase the yearly produce which it yields.

Some soils produce large crops often repeated without manure, five crops of corn and a fallow are the conditions entered in some leases in the neighhood of Wisbeach in Lincolnshire, while other land will produce nothing without great expense of culture and manure, nor will an excess of manure make such land permanently productive; but if we change its constituent parts by the addition of those earthy materials of which it is deficient, so as to bring it nearer to the nature of those soils which we know to be fertile, then we shall permanently increase its productive powers.

Water being the vehicle by which nourishment is conveyed to plants, the soil, whose constituent parts is best adapted for retaining a sufficient supply and transmitting a proper portion in very dry weather to the plants growing in it without holding it in injurious quantities in the time of very wet weather, is possessed of the principle of vegetation and will be found to be of the most productive nature. Such a soil will give not only firmness to support the plants, but will facilitate the growth of their roots in search of moisture and nourishment to the greatest depth.

There is not an individual who cultivates a garden and who exercises his judgment in its culture, but knows that the addition of clay gives cohesion to sandy or gravelly soils, and that sand and gravel when mixed with a clayey soil diminishes its tenacious property; and that these changes thus effected permanently increase the productive powers of both.

In our endeavor to improve barren soils, we should examine them in connection with fertile soils in their neighborhood, on the same geological formation, and the difference of their constituent parts may lead us to the means of their improvement. If the cause of sterility be owing to some defects in their composition, these defects should be supplied. An excess of silicious sand is improved by the application of clay, peat earth, or calcareous matter, cold well rotten manure, and rolling or trampling with sheep or other stock, to consolidate its texture.

When clay is in excess, it is remedied by the application of sand, chalk marl, or burned clay, light unfermented manures, and perfect pulverization, to make the soil friable. An excess of vegetable matter as in peaty soils, in a dormant state is corrected by burning, by the application of clay, sand, calcareous matter, gravel, rubble, or anything heavy, to give firmness to the soil. Lime not only destroys the injurious effects produced by sulphate of iron which abounds in some soils, particularly in those of a peaty and silicious gravelly nature, but is said to convert the sulphate of iron into a manure. None of these applications however, will have the desired effect, unless there be first a perfect subsoil drainage of all superfluous moisture conjoined with a perfect tillage. To alter the nature and properties of the constituents of any soils may be more expensive than to manure it; but the effect of the former will be lasting, while that of the latter is transitory; the one permanently improves the nature and quality of the soil, the other only imparts a temporary excitement to force a crop for a year or two.

The materials necessary for the permanent improvement of the soil are seldom far off, and the expense, though in some instances considerable, is soon repaid by the permanency of its increased fertility; the manure applied afterwards has a much greater effect, the expense of cultivation is greatly diminished, and the capital laid out is soon restored by its yearly increased produce. By these alterations we store the earth with hidden and inexhaustible treasures, which invisible to the eye put forth their strength and give us the evidence of their presence by the effects produced on vegetation.

In the process of vegetation, nature supplies soil, water, light, and heat; but the matter composing the soil may not be in such a state as to receive, and transmit these in such quantities as will produce a healthy vegetation.

Man may regulate the supply by cultivation and by altering the texture of the soils.

When the materials of which the soil is composed are in proper proportion, the soil is most productive; when any one of the ingredients is in too great a proportion, the soil is unproductive.

Pure clay, silex or lime, we have before stated, are barren, if they are found alone; but if they are mixed together, having a due portion of water, the influence of the sun, and a proper admission of air, (which are the prime movers in vegetable life) a fermentation amongst the materials is created; and if vegetable and animal manure in a state of decomposition be combined with these, the soil which was sterile when separate will become productive when combined, and this mixture of materials and mechanical alteration will change the texture, and improve the quality of the soil.

Neither the clay, the silex, nor the lime are decomposed by this process, but the soil composed of these materials in proper proportions has the power of combining with, and decomposing the vegetable and animal matter, the water, and air which it contains, and produce results which afford the necessary food for the growth of plants.

When the particles of earth which compose the soil are separate from each other, or well pulverized, it holds the greatest quantity of free or available moisture, and readily transmits it to the plants which are growing in it; but when the particles of the earth are closely packed together, like new made bricks, it neither can receive moisture, nor will it give out that which it already possesses.

Good soils are naturally possessed of certain powers, with which, by the aid of husbandry, we can produce certain effects; on poor sterile soils, these powers may be conferred by artificially altering their texture.

When the fluid in the soil is so connected with the fluid in the plant, and gives out to it a constant and healthy supply, then we say the soil is in good condition.

Manure applied to the soil increases its vegetative powers, but the way in which it acts is not well understood. The processes of the small rootlets are so very minute, that no crude substance can pass through them; it can therefore, only be taken up by them in the form of water or gas, and be absorbed by the leaves.

Well rotten manure gives an unctuous or cohesive property; but when in a loose or strawy state, it gives a porousness or looseness to the soil.

All mineral manures, as lime, chalk, marl, sand, gravel, ditch mould, road scrapings, and earthy matter, act on the soil merely as an alterative, by changing the constituents of the soil and improving its texture, and by giving it an increasing power of imbibing and decomposing water, air, and organic matter.

The most abundant ingredients in soil are sand and clay, and as a mixture of the one with the other tends to improve both, nature has so ordered it, that these are generally found in great abundance near to each other.

In the plastic clay formation, extensive tracts of sandy soil are found lying upon the brick clay; the soil of which is greatly improved by lifting up the clay, and spreading it over the sand at the rate of 100 cubic yards to the acre.

There is also a considerable extent of this formation covered with flinty gravel, mixed with clay and sand, with a thin covering of black mould or peat earth for its surface, which produces heath and furze.

This lies near the clay, and the whole of this may be greatly improved by trenching, or otherwise mixing the sand and gravel with the clay below. The most of this is near the chalk, and would be greatly improved by an admixture of 80 or 100 cubic yards of it per acre. Chalk or lime destroys the pernicious effects of the sulphate of iron in the gravelly soil, and makes the soil which was worthless, so productive as to pay the whole of the expense in a year or two.

Soil that is chiefly composed of finely divided or impalpable matter, is greatly improved by the application of small stones, gravel or coarse sand; as this prevents the soil from collapsing or consolidating during continual rain.

All alteratives should be put on the land in small quantities at a time, or if in large quantities it should be when the land is in fallow; and these

should be well mixed by repeated ploughings, or by Finlayson's harrow, which is an excellent implement for loosening and breaking the fallow slice. The best way of putting on small quantities of materials for altering the texture of the soil is to make a mixture of them with the manure you intend to apply to the field; and these ought to be well mixed by laying them loose together, turning them several times, and fermenting them in the mass. When this is properly done, it should be carted and spread on the soil when in fallow, and be ploughed in and well mixed, so as to be completely incorporated with the soil.—*Morton on Soils.*

Roxbury, Sept. 24th, 1838.

To the Editor of the New England Farmer.

SIR,—The inclosed letter was written three years since, (as its date imports) but withheld from a fear, that I had *annoyed* the public with lucerne grass, and that people would begin to call me the "man with *one idea.*" My late success has induced me to publish it, and I invite all farmers who may have opportunity to visit my *third crop this dry year.* It will not be cut before the 6th of October. It is a beautiful sight in such a season.

JOHN LOWELL.

For the New England Farmer.

LUCERNE GRASS.

MR FESSENDEN: I recur once more, in spite of the ill success of my former efforts, to the subject of this invaluable grass. I feel a full conviction that it will be, sooner or later, the favorite grass of the New England States, for whose soil and climate, it is peculiarly adapted. It will finally take the place of the Dutch clover throughout New England. It is better adapted to our soil. It bears our severe droughts much better than any grass we have hitherto cultivated.

I begin by stating my own experience. It is of fifteen years duration. That is no trifling trial. I go on regularly in the extension of its culture and upon dry, sandy, and gravelly lands, it will forever be for me, the favorite grass. It may be asked, what are the peculiar advantages which you have experienced from this grass? I answer, first, double crops in weight at least, from the same extent of ground. The Lucerne will give in this state, two good crops, the *first* season *in which* it is *sown.* Is there any grass, which will do this? It will endure in good heart for five years? Will *clover* do this? It will endure the severest droughts when all *other grasses* fail. What grass will do this? It is the favorite grass of the horse and the cow. It will fatten them faster than any other grass. It will do as much for a horse as an ample supply of grass, and four quarts of grain a day, in keeping him in flesh and strength.

But many persons have failed in attempts to raise it. And what then? Does it follow that it is not worthy of culture? By no means. If *one* man uniformly succeeds for fifteen years, there must be some good reasons why others *do not* succeed. Let us try to seek out the causes of their ill success. It is not the climate, because it stands our severest *winters* unhurt, when clover *fails.* It stands our severe *droughts*, when clover *dies.*

It has been intimated, that *my* success is owing to peculiar care, and high culture. This is *not so.* It is treated exactly like the red clover, and I give to it, purposely, my *worst* lands. Not that it does not do *honor* to the *best.* It will reward the cultivator in the *best* soils.

What then have been the causes of its failure with *many* cultivators? I will endeavor to state my opinion on that subject. The lucerne will not grow in most meadow *lands at all.* It cannot bear low lands. It will die, if water rests upon it in winter. On uplands, it has failed from an insufficiency of *seed.* It requires 20 pounds to the acre and the price of the seed has been so high that our farmers would not buy it or in too small quantities, but it can be afforded from Europe at 14 cents per pound, though our seedsmen cannot afford to sell it at *that* price on account of the *limited* demand. It is like every thing else, if the demand is small, the supply will be *small* and *high.* My object is, to recommend its culture, and when it becomes general, the seed will be abundant and cheap, but no man must expect a crop without 20 pounds to the acre of seed, but as it endures five years *at least*, and pays for its cost the first season, it is a miserable and wretched economy, which, witholding the seed, decries the plant as unproductive.

It is with me, the richest treasure. My farm is small, it is true, but it is a grazing farm, and my produce is 20 tons of hay. Surely the experience of such a farmer for 15 years, is worth something.

JOHN LOWELL.

August 6, 1835.

I have already cut two crops from lucerne, sown in April last; and two crops from lucerne two years old, and two crops of hay from lucerne three years old, at the rate of three tons per acre. I expect two crops more from each. These are *facts*, notorious to them, who pass by my grounds.

What *have we like it?* Lucerne must be, and *will be* the grass of the south shore of this state, and other light lands of New England.

Let farmers, who pass this way visit my lands, let them see the grass, and the hay produced from it, and inquire of those who feed my stock, and they will be satisfied, that the lucerne is yet to be a blessing to their farms.

For the New England Farmer.

INDIAN CORN.

More than a hundred fold! !—Old Connecticut yet—Connecticut forever! !

MR EDITOR: In the year 1837, in the garden of Elias Tully, of Saybrook, Connecticut, there grew two kernels of corn. One of these kernels produced 5 stalks—11 ears and 2147 kernels. The other produced 6 stalks—15 ears and 2276 kernels! Let the rich prairies, the fertile river bottoms, and other parts of the great West beat this if they can.

Yours, as ever,

AN OBSERVER.

For the New England Farmer.

MEXICAN CORN.

MR EDITOR: A variety of corn, said to be from Mexico, and said to be a very large, and a very productive kind, was planted in several places in 1834. But one kernel, however, of this variety was known to vegetable. *That one* stalk stood a towering giant in the garden of Elisha Tully, of Saybrook Conn., and on the 13th of Sept. 1834, though it had neither *tassalled out*, or *eared* out, it measured 16 feet in height, without stretching up any of its leaves, as it stood in the garden. The height was ascertained by setting up a pole by it, and measuring the pole. The reader will not be likely to realize the great height to which the corn above mentioned had arrived, unless he measures 16 feet up the side of a house, a tree, &c., and then looks at it. The frost cut off this corn before it had made any seed. Would not this kind of Mexican corn make a prodigious burden of green corn fodder if sowed broad cast on good ground?

Yours, Respectfully,

ASA M. HOLT.

For the New England Farmer.

Weston, Sept. 21, 1838.

FRIEND BRECK: The following is worthy a place in your useful and valuable paper.

Messrs Stearns & Crehore, merchants of Waltham, ten miles north west from Boston, planted 90 hills of the Marrow Squash from which they gathered over three tons of Squashes, which they sold from their store at 1 1-2 cents per pound, amounting to one hundred and about twelve dollars, making one dollar and twentytwo cents per hill. Who, who, can beat this?

JONATHAN WARREN.

From the Genesee Farmer.

FLIGHT OF GRASSHOPPERS.

The warm, dry weather of the present season has been favorable to the propagation and growth of these depredators, and in some sections of the country they have been productive of much injury. In their general habits they are much assimilated to the locust of Asia and Africa, and the present season has developed their migratory powers in an unprecedented degree. It seems from the Lancaster (Pa.) and Frederick (Md.) papers, that the grasshoppers, after having devoured the pastures of those sections, have taken wing in immense numbers for other as yet unvisited places. The Lan. Jour. says:—"About noon on Wednesday (Aug. 8th) a cloud of grasshoppers passed over the city of Lancaster. Their course was from the northeast to the south-west. As we did not see the whole of the procession, we cannot say how long they were in passing, or what were the objects of their journey. The appearance of these insects was singular and beautiful. Their glossy transparent wings shone in the sunlight like stars, and and their twinkling completed the illusion." At Frederick, the greatest appearance of their flight was on Thursday the 9th. The number floating was immense, and though the fact was not known at the time, it seems very probable that the clouds of them observed at Lancaster, were the same seen at Frederick making a very respectable flight for twentyfour hours. The Frederick paper says, 'birds were hovering around them picking up stragglers, and some came as low as the house tops. Their appearance was very splendid, and attracted the notice of all.'

The migration of grasshoppers we have observed several times, and it appears to be governed by the same causes that impel the locusts of the Eastern world in their devastating movements. When hot and dry weather succeeds their hatching from eggs deposited in the ground the previous year, they quickly obtain a size and strength that enables them to set the ordinary chances of the summer

season at defiance, but which, in less favorable circumstances, would prove fatal to many, or the most of them. The dry weather that hastens their growth operates to prevent a proper supply of food, and thus causes or hastens their migrations. About noon or a little before on a hot dry day with little wind, the observer will see now and then one rising from the earth, and in a kind of circling flight, rising high into the air. The number will rapidly increase, until the whole atmosphere seems filled with them, or until all that are capable of a sustained flight have floated away. Many will fall to the earth, and the heavy gravid females with their clipped wings, are, of course, left to deposite their eggs for the continuance of the race.

The flight is with the current of the air, and when the sky is of a deep blue, and the sun is shining bright, the millions of them glancing in the sunbeams at an immense height, gives to the part of the heavens occupied by the sun an appearance the most brilliant imaginable. They seem like shining spangles laid on the deep blue, and glitter and glance in every direction. We do not recollect that we have ever seen a flight of them descend, repeatedly as we have seen them rise; and hence we conclude that in this country at least, they disperse in different bodies, or gradually waste away by the weaker ones falling to the earth. Be this as it may, wherever they appear they are a formidable scourge. Our ruta baga field this year is by the side of a meadow, and since that was mown, they have commenced feeding on the turnep, and the bare ribs and stems of the leaves on the plants most exposed, show plainly their ravenous appetites, and powers of feeding. To what extent they will injure the turneps remains to be seen. We have known them greatly damage corn fields, by eating off the silks before the corn was impregnated, and we once had a field of beans entirely destroyed by an irruption of grasshoppers from an adjoining meadow. We have, therefore, always hailed the beginning of their flights into the air as a proof that we were soon to be rid of their presence, and freed from their depredations.

THE CROPS IN PENNSYLVANIA.—An intelligent correspondent of Bicknell's Reporter, writing from Pittsburg, gives the following valuable information respecting the crops in Pennsylvania, west of the Alleganies.

"It affords me pleasure to inform you that the crops in this vicinity are by no means as bad as I understand they are in the agricultural counties east of the mountains. Indeed, I never remember a much better wheat and rye harvest than that of the present year. Wheat has been remarkably productive, and rye has shown a fair average crop. At that time, however, the drought had not been severely felt. We were only in the beginning of that calamity, and I regret to add that we have since suffered considerably from it.

In the counties of Westmoreland, Allegany, Armstrong, part of Indiana, Fayette, and Greene, the corn will perhaps turn out better than in any other districts of Pennsylvania; than that east. I should say, that in most instances, the crop will not fall short of a very fair average. But then it should be remembered that this is by no means a great corn country—the farmers chiefly growing wheat, rye, and potatoes; while for a supply of corn in the cities, towns and populous villages, we chiefly depend upon Ohio and Virginia. A few days since, a miller near Pittsburg, purchased a large quantity of wheat as low as 75 cents per bushel, and it no where exceeds a dollar at the present time.

The chief loss occasioned to farmers by drought, will be in potatoes, the plantations this year positively promising to produce *next to nothing!*

In the counties north of this—Butler, Mercer, Venango, Crawford and Erie, the same remarks that I have made in reference to the better inhabited western counties, will also apply, with the single exception of the sandy districts, where nearly all the crops are lost. Population in those counties is yet but thin, and the loss, therefore, by no means considerable to the community at large, though it will fall heavily on individual farmers and cultivators.

The crops of Western Pennsylvania may be recapitulated:

In the rich lands,
Wheat—an excellent crop.
Rye—a very fair average.
Corn—almost an average crop.
Hay—the *first* crop abundant.
Hay—the *second* crop a total failure.
Oats—about two thirds.

In the mountain districts, nearly all the crops have failed.

It will be remembered, however, that the wheat and rye harvests were excellent and abundant.

(For the New England Farmer.)

MR. EDITOR: Can you inform me why I cannot raise *pumpkins*? I have taken pains not only to get good seed, but also seed from abroad, and planted it apparently on good ground, and yet on account of the *moon or* the *season*, or the *seed*, or some other cause, I have not got half a dozen pumpkins fit for *pies* on my whole farm. It has been suggested to me of late by a friend, that it was for the want of *old seed*. An old farmer of his acquaintance tells him that he plants seed that is from 2 to 3 years old, and sometimes 4 years old. I asked a neighbor of mine the other day, if he ever heard of the thing? he said he had, and this neighbor, although not a farmer by profession, but a blacksmith, nevertheless has some good ideas about farming, and withal raises some large pumpkins, and has one now in his garden, which he and some others think will weigh fifty pounds. And now, Mr. Editor, seeing that pumpkins are of so much value, especially in this section of country, that we can hardly keep *Thanksgiving* without *pumpkin pie*, would it not be well to give the above considerations to the public, through the columns of your agricultural Journal. If you think so, you would oblige at least one agriculturist, if I may be permitted to use that term, by so doing, but if you have other matter of more importance or more interesting, please to lay this aside and take that. When I get a little more experienced in farming, perhaps you will hear from me again; for although I like your journal very well, yet it does not exactly coincide with all my views and experience about farming, but, at present, I shall *read, examine and practise* in silence.

Yours, &c.
J. MITCHELL.

Chester, Ct., Sept. 21, 1838.

REMARKS.

We are truly sorry that our correspondent has been so unsuccessful in his attempt to raise pumpkins. The thought of keeping thanksgiving without a pumpkin pie is surely almost insupportable and especially for a Connecticut man. Should he fail in obtaining a supply in his immediate neighborhood for that important day, we shall be very happy to forward him one, if he will say in what way it shall be sent, as we have been more fortunate in our farming operations. The culture of the pumpkin is so simple, that we supposed every farmer raised them in abundance, without difficulty. The most common method is to plant them among corn., sticking a seed in every other hill at the first hoeing, but the better way is to plant them by themselves, when fine pumpkins are wanted. The land should be made very rich in the first place. The hills should in this case stand 7 or 8 feet apart every way, or even ten feet if the ground is in first rate order. It is generally supposed that the seed, of all vines, is better for being 4 or 5 years old. Mr. Marshall, an Englishman, who published a book on gardening some years since when speaking of melon seed, observes, that, "if new seed only can be had, it should be carried a week or two in the *breeches pocket*, to dry away some of the more watery particles!"

To which Mr. Cobbett in his treatise on gardening exclaims, "What should we do here, where no breeches are worn." We are of opinion that old seed is preferable to new, and perhaps new seed may be improved as Mr. Marshall directs by carrying it in the breeches pockets! we have never tried the experiment, but we know those who do prepare their melon seed by filling their pockets with it a few weeks before they wish to plant it, and who believe the quality of the seed is improved thereby. We have a few hills of pumpkins, which were planted by themselves that have given us a great quantity. One was picked a few days since which weighed 47 lb. and there are many others of nearly the same size. A vine accidentally came up in a rich part of our garden, and in consequence of a partial destruction of the young crop around it by worms, it was suffered to remain; it spread out in every direction 10 or 15 feet, giving a good supply of fine yellow pumpkins. J. B.

MILK! MILK!!—We have never visited any place where the milk was so bad as that used in the city of New York. We used to think its inferior quality arose from its being adulterated by a mixture of chalk and water. But our New York city exchanges tell us differently. There are 18,000 cows in the immediate vicinity of the city, from whose milk the inhabitants are supplied;—these cows are fed with 200,000 bushels of annually distilled grains in the city and neighborhood.—These grains are corrupt and unhealthy; so much so, that they consume the flesh around the cow's teeth, also rotting the teeth, so that all these cows becoming sickly in one year, are sent to the market to serve the people as a miserable substitute for beef, and 18,000 new and healthy cows are substituted in their place in one year, to share the fate of their predecessors. So poisonous is this milk, that out of 100 children fed with it, 49 die yearly. Thus 2,000,000 bushels of grain distilled, scatters disease among men and beasts. Our bread is destroyed, and a distilled destroyer sent into all the land. When will enlightened public sentiment put down the growing evil?—*Olive Branch.*

GEOLOGY OF MASSACHUSETTS.

Continued from page 85.

Theory of the action of Lime on Soils, Manure, and Vegetation.—"The action of lime is threefold; each distinct. 1. It is a *Neutralizer*: 2. a *Decomposer*: 3. a *Converter*. 1. I have already alluded to some acid soils: free phosphoric acid, geic, acetic, and malic acids, also occasionally exist in a free state in soils. Here lime acts as a neutralizer. 2. Soils may contain abundant geates; particularly geate of alumina, the least of all demanded by plants. Long formed and sun-baked, they are scarcely acted on by rain or dew, and are almost useless. Here lime, by decomposing these metallic and earthy geates, forms a combination, which, in its nascent state, is readily dissolved. If the carbonate of lime acts better than the hydrate, it is because, following a well known law, double decomposition is easier than single. If any acid geine exists in the soil, or any free acids, carbonic acid is then liberated; it acts on the geate of lime, supergeates result, and these are easily soluble."

"3. The great use of lime is as a *converter*; turning solid and insoluble geine, nay, I go further, solid vegetable fibre, into soluble vegetable food. Here is the great puzzle, the point where our philosophy seems to leave us; giving us our choice, to refer this action to one of the numerous cases of mysterious '*catalytic*' change, with which we are becoming every day more and more familiar, or to explain the process by referring the whole to *saponification*. I use this word as conveying to you at once what I mean;—but I do not mean to say that the product of lime and vegetable matter is soap; but I cannot make myself more intelligible to a farmer than by saying, this lime makes compounds of vegetable matter, just as it makes soapy compounds of oil and fat. The action of lime on geine I take to be of the same nature, as its action on oils and fat. It is well established that animal and vegetable oils and fats are converted into acids by the action of alkalies, earths, oxides, and even by vegetable fibre itself. The general law is, that whenever a substance, capable of uniting with the acid of fat or oil, is placed in contact with fat or oil, it determines the production of acid. Now we have seen that alkali produces a similar change on geine; it developes acid properties. I go further, if alkali has converted vegetable oil and geine into acids, I see no reason why a similar action may not be produced by all those substances which act thus on oil. Hence *lime*, earths, and metallic oxides, convert geine into acid; as fast as this takes place, so fast it becomes soluble. Then too the long action of air on insoluble geine, rendering it soluble, is it not analogous to the action of air on oils. Both evolve in this case, vast volumes of carbonic acid, the oil becomes gelatinous and soluble in alkali; does not a similar change occur in geine? It is possible that during the action of lime on geine, a soluble substance may be produced, bearing the same relation to this process that glycerine does to saponification. These views you will see need to be followed out experimentally. If found tenable, the most signal benefit will result. We place manures on a new foundation, on which great practical results may be erected.

Practical application of the Theory of the action of Lime.—Taking the preceding principles as our guide, we may lay down a few general principles for the application of marls.

1. Enough ought to be applied to neutralise all the free acids in a soil; which may be known by its ceasing to produce acid plants, such as sorrel and pine. Generally, however, the amount required for this purpose is small.

2. It will be serviceable to add enough to convert the earthy geates of a soil into geate of lime. The richer a soil is, the greater we may conclude is the quantity of geates which it contains.

3. It will be serviceable to add enough to convert all the insoluble geine and vegetable fibre in a soil into soluble geine. Hence the richer a soil is, and the more manure is added, the more marl will it bear with benefit. Indeed, *there appears to be no danger of adding too much marl, provided a sufficient quantity of manure be also added.* Ignorance of this principle, I apprehend, is the source of most of the failures that have occurred in the use of lime upon soils. Farmers have supposed that its action was like that of common manure, viz., to serve as direct nourishment to the plant; whereas it only *cooks the food*, if I may be allowed the expression, which exists in the soil, or is added along with the lime. In nearly all cases of over marling which I have read of, a fresh supply of manure has been found to be the remedy; which shows the truth of the above principle. Agriculturalists have spread marl alone, or with very little manure, upon land that has been worn out, that is, whose geine has been exhausted; and because such soils have not thereby been recruited, they have inferred that lime was injurious. Without acids, or geine, or geates, or vegetable fibre, to act upon, much excess of lime appears to operate injuriously, so as to diminish, instead of increasing the crop. They have also expected a sudden and surprising increase of fertility; whereas in some cases the chief benefit seems to consist in causing the land to produce for a greater number of years, by preventing the ultimate decomposition and escape of the organic matter. In general, however, it will add also to the yearly product: but those who employ marl or lime in any form, ought to moderate their expectations, that they may not be disappointed, and to be satisfied if they can slowly and surely improve their lands as they most assuredly can do, by this substance, provided they do not expect to accomplish it by the use of lime alone.

These general rules can afford only a general guidance as to the quantity of marl proper to be used. Both marls and soils vary so much in their composition, that probably direct experiments will always be necessary to ascertain the quantity of any new variety of marl that will be most serviceable. And should any of the agriculturists of Berkshire county be disposed, as I doubt not they will be, to try the marls above described, I beg leave to recommend to them, as the best practical treatise that has been published in this country, on this subject, "An Essay on Calcareous Manures," by Edward Ruffin, Esq. of Virginia, Shellbanks, 1835. This gentleman has tried a vast number of experiments on the subject, and the perusal of his work is almost indispensable to any one who would successfully prosecute it, He says, "if the nature of the soil, its condition and treatment, and the strength of the marl were all known, it would be easy to direct the amount of a suitable dressing: but without knowing these circumstances, it would be safest to give 250 or 300 bushels to the acre of worn acid soils, and at least twice as much to newly cleared, or well manured land." (Essay pp. 54.) The marl which Mr. Ruffin used was the shell marl; a large part of which has no action on the soil for several years; nor does it contain any geine. On both these accounts probably, the Berkshire marls should be used at first in a smaller quantity; and I suspect that great care will be necessary to avoid using too much.

As to the best mode of applying marl, theory would lead us in general to prefer the method usually adopted, viz: to mix it with compost before spreading it on the soil And I would here express a hope, that if experiments are made on the Berkshire marls, a portion of the black vegetable matter that lies above them, may sometimes be mixed with them, to see whether it may not become converted into a geate, and thus increase the value of the marl. It would, indeed, be an important discovery, if from the same swamp both the geine and the lime could be obtained, in a state proper to sustain vegetation.

Marly Clay.—Most of the clay in Massachusetts contain a very small proportion of carbonate of lime, the greater part of which, however, is converted into those curious concretions called claystones, which usually contain more than 50 per cent. of carbonate of lime. But it was only in the north part of Berkshire county that I found enough calcareous matter in the clay beds to be of any consequence in agriculture. In other parts of the county, I met with but few clay beds; though I doubt not thut others, besides those described below, may be found. The following analysis gives the composition of one specimen from North Adams and another from Williamstown, a little southeast from the college. Both were taken from excavations for making brick.

No.	Locality.	Carbonate of Lime.	Silica and Alumina	Prot-Oxide of Iron.	Carbonate of Magnesia.	Water of Absorption.
146	Williamstown,	11.7	68.0	18.0	trace	2.3
147	North Adams	28.0	43.4	26.9?	0.99	0.7

Can there be a doubt, but clays so rich in calcareous matter as the above, would prove very valuable in cultivation? especially when we recollect that clay alone, destitute of calcareous matter, is of great service to some kinds of land. The bed in Williamstown, from which the specimen analysed was taken, is composed of the common plastic clay; but that in Adams, (a little east of the village,) is usually sandy; although a part of the same bed, less calcareous, is used for making bricks. On some soils fine sand, so full of calcareous matter, must be excellent. The quantity of magnesia in it is too small to affect its value unless it be favorably. In applying it, the same principles should be our guide as in richer marls. Other beds of marly clay may be found probably, by the use of vniegar or other acids.

Magnesian Limestone in Agriculture.—Very many limestones contain magnesia, and it seems to be generally admitted, that where this is the case, a large quantity spread upon soil is injurious; that is, when the stone has been burnt so as to drive off the carbonic acid. In small quantities, however, it would seem that even calcined magnesia is useful; as we might presume it would be from the fact that most soils contain it in small quantity. Again, it appears probable, that magnesian limestone, if not burnt, but merely reduced to a fine powder, will operate favorably: or even if we admit that in such a case the magnesia exerts no action, it will not prevent the salutary action of the lime united with it. But since magnesia unites with geic acid

and forms a compound more soluble in water than geate of lime, there is reason to believe that magnesia, properly applied, may be of service in agriculture. It would be very desirable that some experiments should be made upon this subject; for it will be seen by the analysis of our limestones that has been given, that many of them are magnesian. In the southern part of Berkshire county, the real dolomite, which contains 40 per cent. of magnesia, is common; and it occurs in smaller quantity in many of the limestones of that country. Nor is it easy by the eye to determine whether a limestone be magnesian. The dolomite, however, is very liable to disintegration, and hence it is easily reduced to powder; and from the principles above suggested, I infer that this is the proper way to prepare magnesian limestone for agricultural purposes. Indeed, I would extend the remark to all limestones where fuel is not abundant. For the great object of burning lime, so far as its application to soils is concerned, is to reduce it to powder. Indeed, when applied in the state of quicklime it is very apt to prove injurious, like magnesia, until it has absorbed carbonic acid from from the atmosphere: that is, until it is brought back to the state in which it was before burning. The inhabitants of Berkshire county will probably never need to use magnesian limestone for agriculture, or any other purpose, because they have enough that is free from magnesia. But much of their dolomite might be more easily reduced to powder than any limestone could be burnt. And if this suggestion about pounding and grinding limestone be of no importance in respect to that which contains magnesia, it may be of consequence in regard to that great quantity of fragments of pure white limestone, which are necessarily accumulated at the quarries, and which are now entirely wasted. How little additional labor would it require, by means of water power, to bring these into the state of powder admirably fitted for agriculture! and who can doubt, but this might become an article of exportation, when the contemplated rail-roads are completed, and the value of lime upon land shall be as much appreciated in this country as it is in Europe!

From the Farmer's Cabinet.

BEST TIME FOR CUTTING TIMBER.

For many years my attention has been turned to ascertain the proper time to cut timber to insure its greatest durability. I am satisfied that the spring, when the sap flows freely, is the best time to fall timber. I am borne out in this opinion by the following statements that I have collected.

J—— C—— informed me that a detachment of British troops crossed from Philadelphia the 1st day of May, in 1777, and on the 2d commenced cutting down his woods for the supply of the army, and at the same time to burn up his fencing, which they completely accomplished. "But," said he, "they taught me the proper time to cut timber to make it last. After they marched off, I found many trees that were not cut into cord wood; those I split into rails, believing, at the same time, they would soon decay, from their being cut in the spring—but I have been agreeably disappointed,—most of them are as sound now as when made into fence." This he related five-and-twenty or thirty years after the peace of '83.

Conversing with an old gentleman in the neighborhood of Haddonfield, he told me that in the spring of the year he was making fence. "My fences," said he, "are all of cedar, but falling short of cedar rails, and having none from the swamp, I was induced to cut down a pine tree and convert it into rails to finish out my fence; they were the only pine rails I ever made use of. Ten or twelve years after this, when resetting my fence, I found the pine rails so sound that I let them remain; since then I have not seen them having left my farm." I proposed taking a ride and look if any of them were remaining. We did so, and found a number in the fence perfectly sound. I asked how long they had been there. He replied, between 28 to 30 years.

An old friend related the following:—"I served my apprenticeship to a carpenter.—During my apprenticeship my employer was sent for to build a barn for a farmer in the neighborhood, who was very particular to have every thing done in the best manner. In the old of the moon in the month of February, he cut down and hauled all the logs necessary for the frame. In the spring my employer was sent for, and when he came to hew the sills, one was so defective we were compelled to get another from the woods to supply its place. Whilst we were building the barn he would frequently lament the loss of the sill he cut in the winter, saying, 'in a few years I shall have to put in a new sill, for this one will rot,' pointing to the one cut in the spring. But, said this old friend, I lived to see the same barn moved, and before it could be effected, they were compelled to put three new sills under it; they were all rotten except the one cut in the spring." This satisfied me that the spring was the proper time to fall timber to insure its lasting well.

Being at Egg Harbor, fitting out a vessel and in company with several persons, the conversation turned us to the proper time to cut timber for ship building—an old man related the following:—I well remember a gentleman coming from Philadelphia to Egg Harbor, and sending for a ship-carpenter to build him a schooner. When they entered into a contract, the gentleman bound him up to cut down all the timber when the sap run, and then take his own time to build her, provided he would get her round to Philadelphia before the winter set in. We all thought he knew but little about cutting timber, and would soon have a rotten vessel. Eighteen years after, said he, I saw the same vessel opened. Her timbers were then sound, and in good condition.

Yours, &c.,

AN OLD MAN.

TO PRESERVE PEARS, PLUMS, &C., FOR TARTS AND PIES.—Gather them when full grown and just as they begin to turn. Pick one third of the largest out and put to them as much water as will cover them, boil and skin them.—When the fruit is boiled soft, strain it through a coarse sieve, and to every quart of this liquor put a pound and a half of sugar: boil and skim it, and then throw in your fruit; just give them a scald, take them off the fire, and when cold put them into bottles with wide mouths, pour your syrup over them, lay a piece of white paper dipped in sweet oil over them, and cover tight.

Economical people will not, of course, think of either making or using many preserves, on account of the expense, and the rigid adherence to the teachings of experience will generally avoid them because they are unhealthy. In sicksess, however, they are frequently very grateful, particularly in pulmonary complaints, and most people who are well, like occasionally to taste of good preserves.

We have before published the following directions, but in this place the information may be of value, as it will lessen the expense of making preserves. Take 8 lbs. molasses—bright New Orleans or sugar house—8 lbs. pure water, 1 lb. coarsely powdered charcoal; boil for twenty minutes, then strain through fine flannel, double; put it again in a kettle with the white of an egg, and boil gently till it forms a syrup of the proper consistence, and strain again. This syrup is said to be better for preserving fruit, &c. than a syrup prepared from the best of loaf sugar, as it is not so liable to candy, nor to ferment.—*Hillyard's Prac. Farming.*

SPICED TOMATOES.—As this is the season for securing a supply of this healthful vegetable, we commend to all housekeepers to put up some after the following receipe. By so doing they may preserve them perfectly good until tomatoes come again:

Recipe for a bushel of Tomatoes.—Take your tomatoes and pour boiling water over them, skin them, then boil them well, after which add a teaspoonful of salt, a tablespoonful of black pepper, one tablespoonful of cayenne, an ounce of cloves, an ounce of mace, mix well, and put the tomatoes in jars, run mutton suet over them and tie them in jars, either with stone blue paper or buckskin. Prepared in this way they will keep a year.

[We had Tomatoes preserved in this manner, during the whole of the last winter. The quantity of cloves, however, in this recipe, is greater than is required. Half an ounce to the bushel is sufficient.—*Al. Ev. Jour.*]

TOMATO PIES EQUAL TO THE FINE ENGLISH GOOSEBERRY PIES.—The other day we partook, for the first time, of a Tomato Pie, and were so much pleased with the treat, that we enquired into the mode of making them. The tomatoes are skimmed, sliced, and after being mixed with sugar, are prepared in the same manner as other pies. The tomato is likely to become one of the most useful of plants.—*Springfield Pioneer.*

CATTLE FEED.—To the people of the Eastern States, it may appear incredible, that cattle actually thrive as well or better here in the *woods*, than in the best clover and timothy of any state; such we believe is the unvarnished truth. This fact is mainly to be attributed to the vast abundance of the wild pea that starts early, grows large and luxuriantly, and furnishes cattle with excellent feed until about the first of July; when the wild bean succeeds it and supplies succulent food in great profusion until late in the fall. Besides these, there are some kinds of grasses that flourish to some degree, and the greatest variety of other herbage we have ever observed in any country. Here the lover of the science of botany has a grand field for the exercise of his patience, and delightful, as well as useful investigations. Here the votary of Flora can procure from nature's own gardens, varieties to compose the richest bouquets, and can for months in succession gratify his taste with flowers, worthy of a place in the most splendid gardens.—*Wisconsin Culturist.*

NEW ENGLAND FARMER,
AND GARDENER'S JOURNAL.

BOSTON, WEDNESDAY, SEPTEMBER 26, 1838.

AGRICULTURAL IMPROVEMENTS.
No. III.

We come now to speak of the third class of agricultural improvements, those which are directly productive. These consist in the reclaiming of waste or unproductive lands, in rendering them productive; and in increasing the number, and value, and quantity of the products of the farm. We maintain that the great object of all agriculture ought to be production—the obtaining from the earth as large an amount of the means of human subsistence and comfort in the form of food, clothing, shelter, and fuel as it can be made to yield. In doing this we are to be restrained but by a single condition, and that is not so to cultivate it as to impoverish the soil; and for a long [and indefinite period of time afterwards render it barren and unproductive. The earth is a liberal benefactor. There are few cases in which she refuses to answer fully the claims of industry and good management. But it is not reasonable to expect, it is not in the order of Providence, that she should expend continually without being replenished. There can be little doubt that the earth can be made to furnish from its own stores the means of maintaining its own fertility. By the application of all decayed substances vegetable and animal, by an exchange and intermixture of soils, by the occasional use of mineral substances, by the direct return to the earth of its own productions in the turning in of green crops, divine Providence has afforded the means of securing forever the productiveness of the earth. It is man's province and duty to use and apply these means; and it is thus in his power not only to secure but to increase its productiveness. Under these reasonable conditions man need not fear to tax the earth to the fullest extent of its powers, and to keep them in constant requisition. The limit of its capacities has perhaps in no case as yet been reached; in most cases it has not even been approached. The object of intelligent agriculture should be then to obtain from the earth all that it can be made to yield without impoverishment; to cultivate such crops and products as are most needed and consequently most valuable; and to put it into an advancing and improving condition.

If we try now the agricultural state of our farms by this standard of what it should be, it will be found greatly inferior and deficient. In respect to Massachusetts itself we have no hesitation in saying that even with present prices of labor, on the supposition that the prices of agricultural produce should maintain the same relation to the prices of labor, which they now do, the agricultural products of the state might be profitably quadrupled; and we think we might even double this measure. We have no doubt that the agricultural resources of Massachusetts, if properly brought out, would be ample to the support of four times the population, which now belong to her.—Where she now produces one bushel of grain, and of esculent vegetables and one ton of hay, she might be made to produce four times that amount. Her beef, pork, wool, butter, cheese, are very small compared with what they might be. Her broom-corn, teasles, and tobacco are crops, which were never seen by a large portion of her inhabitants. Her maple sugar which is now in some parts of the state a considerable product, amounting in one town to several thousands of pounds yearly, might be vastly increased. Her apples, which, to say nothing of the value of the fruit for market or exportation, yet for feeding neat cattle and swine, are beginning to be appreciated at more than half the value of potatoes, are nevertheless comparatively a very small product. Hemp and flax are articles scarcely cultivated among us; yet in many cases would furnish an ample remuneration to labor. The cultivation of madder has not yet we believe been even tried among us. The cultivation of beets for sugar and of silk give a fair promise of the most abundant returns; but as yet can scarcely be said to be commenced. Now the question is not whether other countries can produce these articles in much greater abundance and at much less cost than we can; but whether Massachusetts can produce these articles in sufficiency for the supply of her own wants; and at such cost as to afford a full and profitable compensation for the labor necessary to their production. Without speculating on future contingences we can only say that at present she could do it to advantage and an ample profit; that an increased production would promote an increase of population and consequently increase the demand; and that an increased production would be followed by an increased use of the products; and that this likewise would stimulate the demand. The great and often vexed question whether a state for example should under all circumstances be advised to raise its own bread, when the same labor applied to other products or purposes would furnish the means of purchasing this bread at less cost, we shall reserve for discussion on another occasion. At present we rest upon the great position that agriculture in Massachusetts may be made to afford an ample and liberal compensation to well-directed labor, and to any amount of labor, which is available or can be brought to bear upon it; and therefore we feel at liberty to urge the subject of agricultural improvement, and the extension of our cultivation.

In New England in the common use or rather misuse of the term improve it means simply to use or to occupy. A man is said to *improve* a farm or a piece of land, when he merely uses or occupies it; and although under his management it should be in a course of impoverishment. It is a very different sense in which we employ the term. We understand a farm to be improved only when under the course of husbandry pursued it is continually becoming more fertile and productive. With this understanding what is the condition of agricultural improvement?

In looking then at the farms in Massachusetts, of which we feel more at liberty to speak than of other parts of the country, we are struck at once with the fact that a considerable portion of most of them is comparatively neglected and unproductive. There are large portions, which require draining. Perhaps in their present state they are overrun with bushes, and saturated with water, so as to be wholly inaccessible excepting when hard frozen. There are other portions so filled with water, that although containing a soil, which little more than the removal of the water would render eminently productive, they now yield nothing excepting a few cranberries, flags, and water-grasses, which will not compensate for the trouble of collecting them. Our peat meadows, of which we have a large extent in the Commonwealth, are among the best grass-lands, which can be found, yielding when properly subdued and managed in many cases two and even three tons of hay to the acre, and a large amount of after feed; and having proved in many cases highly productive in potatoes, wheat, and rye. There are other extensive tracts of meadow land of an alluvial character, of a soil of black mud, decayed vegetable matter, resting upon a gravelly subsoil, whose product in its present condition is comparatively worthless, which at a reasonable expense of draining and manuring, might be converted into the best of English mowing. Of these two descriptions of land there are thousands and thousands of acres in the state, which remain untouched. The many highly creditable examples of distinguished improvements of such soils in Hamilton, Wenham, Lynn, Framingham, Lexington, Groton, Concord, and many other places, show what may be done, and to the highest advantage and profit. We shall hereafter refer to them.

H. C.

PUBLIC HEALTH.

There seems to be a strong impression prevailing with many intelligent and observing persons, that the health of our young people, young men and young women, is much less perfect than formerly; they are more feeble; there prevails a general debility; they are more subject to disease; and there are more deaths among the young than formerly; and especially the capacity for labor is greatly reduced. The younger part of the community are not only less disposed, but much less able for physical exertion than formerly. We do not state this as a determined fact; but as a strong, and, to a considerable extent, a general impression. Others can judge as well as ourselves how far it is confirmed by their own observation. For ourselves we believe the fact; and that in muscular energy, activity, and power the race is degenerating. We are aware that it is a fact of rather difficult proof; and that the judgment may be fairly made up it would require such a variety of *statistical* returns as are not easily obtained. But we not only have come to the melancholy conviction of the fact in the case but we think we see many reasons, why such a result should be certainly expected. What these reasons are we cannot enter upon at present; but we may do it hereafter if opportunity should admit; and if the discussion be likely to prove useful. From the number of patent nostrums, the advertisements of which crowd the columns of our newspapers, there would seem to be no necessity that mankind should ever be sick, much less that they should ever die. It may be that this wholesale quackery is one of the principal reasons of the evil, which we deplore. We have nothing farther however to add on this subject than to remark that there exists an intimate and inviolable sympathy between the mind and the body; that any general decline of the latter must be followed by a corresponding imbecility of the former; that considering the subject in a general view, intellectual health and energy must essentially depend on physical health and energy; and that any attempt to purchase the former at the sacrifice of the latter is commonly idle and vain; and in cases of the most brilliant success is but a miserable bargain.

H. C.

FLAX.—A patent has been taken out for a mode of so preparing flax that it may be spun by machinery like cotton. It is not water or dew-rotted and all the original strength of the fibre is preserved. We are not at all apprized of the mode by which it is prepared. We have seen the article. It is very beautiful and has the appearance of silk. We are comforted with the hope, therefore, of being able to wear linen shirts and sleep in linen sheets still longer; a luxury of which the increasing manufacture and the extraordinary cheapness of cotton cloth threatened to deprive us.

The Plymouth County Agricultural Society will hold their Annual Exhibition at Bridgewater, on Wednesday, October 10th. We have not learnt who is to deliver the address on the occasion. The Worcester County Cattle Show is to be held on the same day.

A man in Albany bought 7000 melons for $400, and having a boat he took them down the canal, and sold them as he went down, at an average of twenty cents, thus realising about $1000 in less than a week.

A frost was experienced in the northern part of New York state, on the 10th, which did some damage to corn, potatoes, etc.

Massachusetts Horticultural Society.

The annual exhibition at the Society's Hall took place last week much to the satisfaction of the numerous visitors who crowded the rooms for three successive days.—The display of fruits was never excelled, but on account of the failure of the Dahlia, the show of flowers was not so brilliant as that of last year. We shall devote the greater part of the next paper to the detailed report of the Committee on fruits and flowers.

NOTICE.

Those gentlemen who forwarded fruits for the late exhibition of the Massachusetts Horticultural Society, and did not leave minutes of the same with the Committee, are respectfully requested to forward lists of the same, directed to Mr Manning, to the care of Messrs Breck & Co. New England Farmer office, Boston, that there may be no omissions in the report.

For the Committee,
Sept. 22. WILLIAM KENRICK, *Chairman.*

FLOUR.—It is said that a few days since, 23 Stores in New York on the North River, were filled with flour; and that there were 30,000 barrels stored in Albany and Troy. If this is a fact, why is it that we at the North have to pay 8 and 9 dollars per barrel, when we ought to have it for $5,00. We are inclined to think that the New York dealers have missed a figure, when they say that the price the present season will be 8, 9, and $10 per barrel, for so long as we can raise such crops of corn as we shall the present season, and get wheat from Maine, for a decent price, we will not encourage, nor had the northern people ought to encourage, such monopolisers of bread stuffs, as those merchants who deal in the article—as there is no question but they are keeping it for the purpose of raising the price.

Mr Samuel Lewis, of Great Barrington, has raised 220 bushels of rye on five acres of land, being 46 bushels to the acre.

BRIGHTON MARKET.—MONDAY, Sept 24, 1838.
Reported for the New England Farmer.

At Market 525 Beef Cattle, 570 Stores, 4,000 Sheep, and 650 Swine.

PRICES.—*Beef Cattle.*—We quote, First quality, $7 37 1-2. Second quality $6 50 a $7 00. Third quality, $5 00 a $6 25.

Stores.—Yearlings, $9 a $13. Two Year Old $17 a $28 Three Year Old, $24 a $35.

Sheep.—Lots were sold at $1 50, $1 58, $1 75, $1 92, $2 12, $2 33, $2 58, and $2 88.

Swine.—Lots to peddle were sold at 6 a 6 1-4 for sows, and 7 a 7 1-4 for barrows. Two lots of selected barrows at 7 1-2 a 8. At retail, from 7 to 9.

NOTICE.

The subscriber offers for sale his real estate in Westford and Groton; consisting of his homestead, 35 acres, his farm, 117, one pasture, 17 acres, one do. 33 acres, one woodlot, 13 acres, one do. 5 acres, and one do. 10 acres. For further particulars see his advertisement in the Lowell Journal, or inquire of the subscriber at his house, near the meeting houses and academy in Westford.

EPHRAIM ABBOTT.

FARM FOR SALE.

In Cambridge, about one mile from Murdock's Hotel on the West Cambridge road with a valuable stone ledge on the same; containing forty acres of good land with the buildings on the same. It will be sold at a bargain if applied for soon, as the present owner is about removing to the West. Apply to the subscriber on the premises.

Sept. 25. 3w AMMI C. TEEL.

FOR SALE.

A two years old Bull of the Cream pot breed; from Mr Jaqueth's stock at Ten Hill Farm, Charlestown. Cows of the above breed make the most butter of any stock in this country. Inquire of the subscriber near the factories in Waltham. ISAAC PARKER.

WANTED TO HIRE

A single Man, who is capable of taking charge of a small Farm. Inquire of JOSEPH BRECK & CO.

Sept. 5.

FARM FOR SALE.

An excellent farm, near the centre of Framingham is offered for sale, on liberal terms. Inqnire at this office.

Aug. 22, 1838. 3m

LAYING OUT GARDENS AND ORNAMENTAL PLANTATIONS.

E. SAYERS begs leave to inform his friends and the public in general that he will attend the laying out gardens and ornamental plantations, and hopes by strict attention to business to merit the approbation of those who may be pleased to employ him

All orders left with J Breck & Co Agricultural Store, No. 52 North Market Street, will be punctually attended to.

BONE MANURE.

The subscriber desires to inform his friends and the public that he has been in the Bone business more than ten years, and has spent much time and money to ascertain how bones may be converted to the best use, and is fully satisfied that they form the most powerful stimulant that can be applied to the earth as a manure. He offers for sale ground bone at a low price, and is ready to receive orders to any amount, which will be promptly attended to

Orders may be left at my manufactory, near Tremont road, in Roxbury, or at the New England Agricultural Warehouse and Seed Store, No. 52 North Market Street, Boston.

Sept. 20. NAHUM WARD.

FRUIT AND ORNAMENTAL TREES, MULBERRIES, &c.

Nursery of William Kenrick.

The Catalogue of Fruit and Ornamental Trees for 1838 is now ready, and will be sent to all who apply. It comprises a most extensive selection of the superior varieties of Pears, Apples, Plums, Peaches, Cherries, Quinces, Gooseberries, Raspberries, Currants, Strawberries, Grape Vines, &c. The stock of Cherries and Peaches now ready is particularly large. Also, Ornamental Trees, Shrubs, Roses, Honeysuckles; Pæonies, Dahlias and other Herbaceous Flowering Plants.

100,000 MORUS MULTICAULIS are now offered for sale; the trees genuine and fine, will be ready for delivery at the cities of Boston, New York and Philadelphia, in October next, at prices fair, and varying with the size, and the quantity which may be desired. Also, Broussa and other varieties.

Mulberry and other trees, when so ordered, will be securely packed for safe transportation to distant places, and all orders promptly executed, on application to B. D. BRECK, Commission Store, No. 132 Water Street, New York, M. S. POWELL, Seed Store, No. 7 Arch Street, Philadelphia, or to the subscriber, Nonantum Hill, Newton, near Boston.

August 1, 1838. WILLIAM KENRICK.

MULBERRY TREES.

200,000 Genuine Mulberry Trees, and as many more as may be wanted, of the most approved kinds—consisting of the best selected varieties now in use, for cultivation, feeding worms, and making silk;—being acclimated to this country, and adapted to either warm or cold climates, affording a rare opportunity for companies or individuals to be supplied, from the most extensive collection of mulberrry trees ever seen in any village within the United States.

Autumn is decidedly the best time for removal, and orders left with Messrs. I. B. Colt, Secretary of the Connecticut Silk Manufacturing Company, Hartford; Alonzo Wakeman, at the office of the American Institute, No. 187 Broadway, N. Y.; Thomas Lloyd, Jr. No. 236 Filbert street, Philadelphia, Pa.; Luther I. Cox, Baltimore, Md.; E. Snider, & Co. Savannah, Ga.; Bliss Jenkins, &Co. Mobile, Al; James Lyman, St. Louis, Mo.; Case and Judd, Columbus, O.; G. Harwood, Rochester, N. Y.; and the publishers of this advertisement, or with the subscriber, in Northampton, Mass.

Orders left with the above gentlemen will be promptly attended to, and each will be furnished with samples of the foliage.

Several valuable farms may be had with or without Mulberry Plantations

Apply at the office of D. STEBBINS.
Northampton, Aug 22, 1838.

FARM FOR SALE.

That large and beautiful farm, late residence of the Hon. Judge Dame, situated in Rochester, N. H. six miles from the village of Dover, and four miles from Great Falls. Said farm contains upwards of 300 acres of land and a large and well finished two story house, with barns and other outbuildings in good repair. About 150 acres are covered with hard and pine wood, besides a good portion of heavy timber. There are also on the premises large quarries of the most desirable granite. Any person desirous of purchasing may learn further particulars on application to JOSEPH BRECK & Co., No. 51 and 52 North Market Street, Boston.

August 15, 1838.

FOR SALE.

Five acres of good Salt Marsh, in Quincy, or (Squantum so called.)

Also, Four acres of Salt Marsh in Brighton.

Also, Several full blood animals, cows and calves. Apply to A. Greenwood, on the Welles Farm, Dorchester, near Dr Codman's meeting house.

Sept. 12, 1838.

PRICES OF COUNTRY PRODUCE

CORRECTED WITH GREAT CARE, WEEKLY.

		FROM	TO
APPLES,	barrel	1 50	2 50
BEANS, white, Foreign,	bushel	1 25	1 50
" " Domestic,	"	2 25	2 50
BEEF, mess,	barrel	15 00	16 00
No. 1.	"	13 50	
prime,	"	12 00	
BEESWAX, (American)	pound	28	32
CHEESE, new milk,	"	6	10
FEATHERS, northern, geese,	"		
southern, geese,	"	37	45
FLAX, (American)	"	9	12
FISH, Cod,	quintal		3 25
FLOUR, Genesee, cash,	barrel	9 75	9 87
Baltimore, Howard street,	"		9 25
Baltimore, wharf,	"		
Alexandria,	"		9 25
Rye,	"	5 00	5 50
MEAL, Indian,	"	4 00	4 50
GRAIN: Corn, northern yellow,	bushel		
southern flat, yellow,	"	1 07	1 10
white,	"		1 05
Rye, northern,	"	1 00	1 20
Barley,	"		
Oats, northern, (prime)	"	50	54
HAY, best English, per ton of 2000 lbs.			16 00
Eastern screwed,		12 00	14 00
HONEY, Cuba,	gallon	50	52
HOPS, 1st quality,	pound	7	8
2d quality,	"	6	7
LARD, Boston, 1st sort,	"	13	14
southern, 1st sort,	"	12	14
LEATHER, Philadelphia city tannage,	"	27	29
do. country do.	"	23	26
Baltimore city tannage,	"	25	27
do. dry hides,	"		
New York red, light,	"	22	22
Boston, do. slaughter,	"	19	21
Boston dry hides,	"	18	20
LIME, best sort,	cask	80	85
MACKEREL, No. 1,	barrel		11 00
PLASTER PARIS, per ton of 2200 lbs.	cask	2 50	2 62
PORK, extra clear,	barrel	26 00	28 00
clear,	"		25 00
Mess,	"	23 00	24 00
SEEDS: Herd's Grass,	bushel	2 63	2 75
Red Top, southern,	"	80	1 00
northern,	"		
Hemp,	"	2 62	3 00
Flax,	"	1 25	1 33
Red Clover, northern,	pound	22	25
Southern Clover,	"	20	22
SOAP, American, No. 1,	"	6	7
" No. 2,	"	5	6
TALLOW, tried,	"	10	11
TEAZLES, 1st sort,	pr M.	3 00	3 50
WOOL, prime, or Saxony Fleeces,	pound	50	55
American, full blood, washed,	"	45	50
do. 3-4ths do.	"	42	45
do. 1-2 do.	"	38	40
do. 1-4 and common,	"	35	37
Northern pulled. Pulled superfine,	"	45	50
No. 1,	"	40	42
No. 2,	"	28	30
No. 3,	"		

PROVISION MARKET.

RETAIL PRICES.

HAMS, northern,	pound		17
southern and western,	"	16	17
PORK, whole hogs,	"	10	11
POULTRY, per pair,	"	50	1 25
BUTTER, tub,	"	18	22
lump,	"	25	27
EGGS,	dozen	16	17
POTATOES, new,	bushel	37	50
CIDER,	barrel	3 00	3 50

CHERRIES.

One dollar and fifty cents per bushel, given for full ripe, fresh, picked and clear of the stems, Rum Cherries, at No. 58 Broad Street, Boston.

4w

EMPLOYMENT WANTED.

A Gardener out of employment would be happy to attend to orders for budding or gardening of any description. Apply at the New England Farmer Office.

WINTER RYE.

Just received at the New England Seed Store and Farmer Office, a few bushels of prime Winter Rye.

JOSEPH BRECK & CO.

Aug. 13, 1838.

MISCELLANEOUS.

SCHOOL HOUSES.

To the miserable condition of some of our school-houses, many can bear witness. In truth, there are but few, who have not seen an old-fashioned one. The floor abounding in hills and vallies, seems to have been laid for the purpose of excluding the blind, or to learn the pupils to "look before they" ——step. Every board is a "*cave ne titubes*" to the careless scholar; every nail a stumbling block. The benches are hacked as if they were so many Agags, who had been under the fatal instrument of Samuel. The cobwebs are so numerous and dense, that they resemble so many oaks spread out to entangle the bushy hair of the young Absaloms. The dust is so closely matted to the walls and ceiling, that one would suppose himself in an old, worn-out coal-pen. Then the stove, placed in the centre for heating the room, draws half and quarter hurricanes through every crevice in the sides of the building; and these enter like the sounds of innumerable musical instruments, abstracting the pupils' attention from their studies by their charming melody. This probably suggested the idea of teaching singing in some of our district schools. The shivering urchins, clattering windows and roaring draught defy all attempts to learn. Some of the most breezy apertures are now sought, and their tunes stopped by the insertion of rags. Thus the process advances till every avenue is blocked up; and though the stove seemed to send invitations to all the winds to aid it, these stubborn rags execute their veto. Now the breaths of seventy or eighty gain the ascendency. The room is tight; and in fifteen minutes the oxygen is consumed, or the air is poisoned. Instead of the most beneficial, the most deleterious gas, carbonic acid, pervades it. One after another yawns—then drops upon his elbow—becomes drowsy—is roused up for a few moments, and if the Argus-eyed monarch remits his vigilance, he is fast locked in the arms of Somnus. The whole grow restless. Even the teacher begins to open his mouth for a gape; and the confined air, confusion, sleepy sounds and laborious exertions, monotonous in the extreme, commence their operation. His eyes grow heavy; his limbs lose their elasticity; his head aches; and he hangs to the back of his turned-up chair in drowsy silence till the long expected minute arrives.

Such is the effect of a deficiency in ventilation. The pupils are compelled to misapply a great part of their time, and hence do not make the intended progress. The energies of the teacher become partially paralyzed, and he is in a measure incapacitated to perform his duty; hence he is unable to do so much as under other circumstances. But where rests this item of fault? With the overseers of the schools. Yet, to whose neglect and responsibility is a want of progress, arising from this, attributed? To the teacher's; and he must be discharged.

The public calculate the teacher's ability to instruct, without taking into consideration any of the very disadvantages they know to be in his way, and which some of them even purposely throw in his way. They suppose him to be put into a perfectly convenient house, with regularly attending scholars, exactly qualified to be taught in the studies of the school, all of an age, with equal talents, unwavering habits, industrious inclinations, faultless self-command, and every other quality to *exceed* perfection. He is stationed in a building similar to that described; and if he does not answer the expectations of the cold calculating world, they heap all the blame upon his innocent head.

These accusations effect another injury. They draw away the attention from a great evil. The health of seventy or eighty children in every such school house is undermined by the inhalation and absorption of the carbonic acid. Their lives are shortened; and more so, as they are in a very precarious and critical period of existence, which is to govern their future years. A partial absence of oxygen would be hurtful; but a supply of carbonic in its stead is destructive. Now what an immense amount of mischief is done to all the children of the United States, if cooped up as above stated! And what must be the loss of time and usefulness in the havoc committed against the whole human race!—*Essex Banner.*

NEWSPAPERS.—The following is an extract from Rev. Mr Winslow's Fourth of July Oration:

"As ready vehicles of public intelligence and instruction, newspapers are of indispensable service; they are eminently republican. They are the most constant companion and teachers of the people. In their daily visits, they are at the doors of their patrons to give them the news, first in the morning and first in the evening; frequently they breakfast and dine and sup with them; they entertain them in the parlor, and advise them in the counting-room; they travel with them in all the coaches, cars and steamboats, upon the public ways; there is not an athenæum, nor reading room, nor house of entertainment, nor any place of public daily resort, where their forms are not seen, and their voices heard. They are in truth the omnipresent geniuses and tutelary goddesses of the people,—and if there be any truth in the proverb, that they who perpetually have our ears, have at last our faith, their influence must be great and decisive upon the destinies of this republic. Considering their immense power over the public mind, every good citizen must see the importance of endeavoring to save them from perversion, of elevating their character, and disseminating them as widely as possible. Every family that can afford it, should take at least one paper, and should exercise the most wise discrimination in the selection. Few men confer more benefit upon the community than good editors, and few do more harm than bad ones."

A thrifty old dame, in by-gone years, built a pudding for a family dinner. Extravagant as she thought she had been, she was rather mortified to find that her boarders were too *hoggish* to appreciate her kind attentions to their wants, and in relating her trials to a neighbor, she pathetically exclaimed: 'I made a pudding to-day, and put a *whole egg* in it; but *after all* our folks would eat *butter* on it!'

A Stove has been invented in New York, called the "poor man's stove," which the patentee offers to furnish together with the pipe, and coal enough to burn through the winter, for *fifteen dollars.* We shall order one immediately.

By driving your business before you, and not permitting your business to drive you, you will have opportunities to indulge in innocent diversions.

NEW ELEMENTARY WORK ON BOTANY.

Peter Parley's Botany; with descriptions of Trees, Shrubs and Plants; with a large number of fine engravings.

The publishers invite Teachers, and others interested in this subject, to examine this work, as they believe it will be found one of the most practically useful in use, being a complete manual of Botany for the adult and the pupil.

Parley's Cyclopedia of Botany.—This work appears to be exactly what is wanted by young persons and in families. It not only contains the strictly scientific part of the subject, in an introduction and very full and complete genera of Plants, but it also contains a copious glossary of terms, and what is most important, a Dictionary of Plants, of nearly 300 pages, containing familiar descriptions of all the most interesting trees, plants, and shrubs.—These are alphabetically arranged, with an English index, so that the reader may immediately turn to any plant he wishes to read about. The work is illustrated by over 200 engravings, and is sold very cheap.—*Boston Paper.*

For sale at the New England Farmer Office, 51 & 52 North Market Street. JOSEPH BRECK & CO.

REMEDY FOR CANKER WORMS.

The subscriber having obtained letters patent for his circular metallic trough and roof for preventing canker worms or other insects from ascending fruit or other trees, now offers his services to apply the same to any extent that may be wanted. They were put on to three orchards belonging to Jonathan Dennis in Portsmouth, R. I., in the autumn of 1837, and exterminated the canker worms so completely that some of the trees hung so full of apples as to render it necessary to prop them, although they have been eaten by the worms for a number of years previous, notwithstanding the application of tar. The public are invited to examine the orchards above referred to. The trough and roof is made of lead and bent to conform to the shape of the tree, and the ends soldered together and made enough larger than the tree to allow the trees to grow ten years before it will fill the space. The space between the trough and the tree is filled with hay, straw, seaweed, or any substance that is easily compressed by the growth of the tree; the trough is kept in its place by three nails driven into the tree below it; when the tree has grown so as to fill the space, the trough may be enlarged by putting in a short piece so as to answer ten years more. A little cheap oil is sufficient to fill the troughs and filling them three times has been found to answer for one year, by stirring the oil once sometime after they are filled. Those who wish to have their trees fitted, would do well to make early application to the subscriber, postage paid. For sale, State, Town and County rights by

JONATHAN DENNIS, Patentee,

Portsmouth, R. I., August 22, 1837. 4w

COUNTRY SEAT IN NEWTON, FOR SALE.

The subscriber offers for sale the house in which he now resides, with the Barn, Sheds, Garden and about 35 acres of land, situated on Nonantum Hill, in Newton, 5 1-2 miles from the city. The garden occupies nearly two acres, is stocked with a great variety of fruit trees, and about 10,000 Antwerp Raspberry Vines. The place may be seen and further particulars obtained on application at the premises.

LOT WHEELRIGHT.

July 16th.

ALDERNEY STOCK FOR SALE.

For sale, a full blooded Bull, 3 years old the first of July next—one Cow, five years old—and a Heifer three years old. The Cows are said to be the richest Milkers of any imported. For further particulars address L. M. WHEATON, Norton, Mass., or a line left at this office, will meet with prompt attention. June 27

AMERICAN FLOWER GARDEN COMPANION.

The American Flower Garden Companion, adapted to the Northern States.

By Edward Sayers, Landscape and Ornamental Gardener. Published by JOSEPH BRECK & Co., and for sale at the Agricultural Warehouse and Seed Store, No. 51 and 52 North Market Street, Boston.

FOR SALE.

A Ram and Ewe from the Cape Good Hope. Inquire at this office.

THE NEW ENGLAND FARMER.

Is published every Wednesday Evening, at $3 per annum payable at the end of the year—but those who pay within sixty days from the time of subscribing are entitled to a deduction of 50 cents.

TUTTLE, DENNETT AND CHISHOLM, PRINTERS,

17 SCHOOL STREET....BOSTON.